

REMARKS

Reconsideration of the Application, as submitted, is respectfully requested. Applicant has amended the specification and claims to improve the form thereof and overcome the examiner's objections thereto and the rejections under the provisions of 35 USC 112. Applicant has also canceled claims 1, 27, 28 and 37 in favor of newly added claims 50-54.

The claims have all been rejected under the provisions of 35 USC 102(b) as being anticipated by the Press et al patent #4,681,349. It is respectfully submitted that a more careful reading of the Press patent reveals that the Press patent does not disclose or remotely suggest applicant's claimed construction and/or method.

Claim 50 recites a lined multi-branch fitting comprising a one-piece multi-branch hollow liner having a plurality of intersecting non-metallic hollow cylindrical branches..., a plurality of individual confronting metal housing members, assembled over and snugly receiving said non-metallic branches..., and a fillet weld bead integrally coupling said terminal ends of said confronting terminal ends of said metal housing members together in sealed relation with each other.

It is respectfully submitted that the Press patent does not disclose or remotely suggest this construction. At the time of filing, applicant was well familiar with the prior art Press

construction which clearly utilizes a butt-weld as is clearly shown in Fig. 5 of Press. The weld 30, illustrated in Fig. 4, is a butt weld because the pieces 31 and 32 are abutting and the junction (the area identified by 20 in Fig. 2) is butt welded by weldment 42. Even though the weld 15 in Fig. 2 barely penetrates beyond the "V" groove, it does penetrate beyond it and does penetrate and butt welds the junction 20.

Likewise, the weld 30 in Fig. 4 is substantially greater than the depth of the weld 15 in Fig. 2 and clearly welds the abutting surfaces of members 31 and 32 in abutting relation. It is clear that the weld 33 (Fig 5) is a butt weld joint as is clearly set forth in column 5 lines 53-57. Fig. 20 likewise clearly illustrates that the weldment to be deposited into the groove 70a will clearly penetrate the abutting surfaces 72-74. As Press points out at column 7, lines 46-49, when the butt joint surfaces 72 and 74 of Fig. 20 are welded, the resulting weld produced will be as previously illustrated in Fig. 5 which is clearly identified as a butt weld (col. 5, lines 36-37). Because the Press patent does not disclose or suggest a fillet weld, he clearly subjects the liner 19 to inadvertent puncture of the surfaces 72-74 and thus subjecting the liner 19 to possible damage.

Claim 50 clearly recites that the confronting ends are sealed together via a fillet weld bead and it is indisputable that Press utilizes a butt weld 33 to seal the metal members 32 and 34 together. The fillet weld is the very construction which allows

applicant to preclude an inadvertent blow-through or puncture. Accordingly, applicant has disclosed and claimed new and novel structure cooperating in a new and novel manner to produce a new and novel result not taught or remotely suggested in the Press patent.

Claim 52 is dependent upon claim 50 and more particularly recites one of said confronting ends includes a radially outer end portion having a first radially outer end face and a radially inner portion having a first radially inner end face relieved relative to said radially outer end face to define a radially inwardly opening radially inner notch; the other of said confronting ends including a radially outer end portion having a second radially outer end face confronting but spaced from said first outer end face to define a channel there-between for receiving said fillet weld, and a radially inner end portion received by said notch having a radially inner end face projecting outwardly beyond said second radially outer face and disposed in abutting relation with said first radially inner end face.

In the Press patent, the end faces of metal parts 31 and 32 as well as the end faces of parts 34 and 32 (Figs. 18 and 19) do not have a radially inwardly opening notch formed on one of the pieces 31, 32 or 32, 34 and having a first radially inner end face relieve relative to a radially outer end face to define a radially inwardly opening radially inner notch. Likewise, the other of the confronting ends of metal members 31, 32 and 32, 34 does not have

a second radially inner end face projecting outwardly beyond said second radially outer end face and disposed in abutting relation with said first radially inner end face. Rather, in the Press patent, the confronting end faces are continuous and not relieved relative to each other and certainly won't define a cooperating end portion received by a notch.

Claim 2 dependently recites that the metallic housing members each comprises a radially inner portion having a radially inner surface snugly receiving said liner. It is clear from Fig. 21, that Press intentionally provides a groove 45, 46, 47 to preclude the metal members 32, 34, from snugly receiving the liner 48. The Press patent has for its very specific purpose the provision of grooves 45, 46, 47 to space the conduits 31, 32, and 34 from the liner 48. To eliminate the grooves 45, 46, 47 would destroy the Press construction for its intended purpose. The cases are legion which recite that a modification which is contrary to the very purpose for which construction is provided cannot be tenably made.

Claim 2 goes on to recite that the radially inner portion of one of said metallic housing members includes an end face provided with a notch adjacent said liner; said portion of the other of said confronting metallic housing members including a confronting end face housing, a male projection complementally formed to and received by said notch and abutting said liner.

Claim 5 similarly dependently recites "said radially inner portions including complementally formed nested male and female terminal end portions."

Claim 8 likewise dependently recites "another of said confronting terminal ends comprising a second radially outer arcuate portion having a third terminal end face and an integral radially inner liner receiving arcuate portion having a fourth terminal end face which is recessed relative to said third end face to form a notch for complementally receiving said male projection."

Claim 21 similarly recites a lined multi-branch fitting comprising a one-piece multi-branch hollow liner...a plurality of metal housing members assembled about different ones of said hollow branches...said confronting terminal ends including complementally formed radially inner male and female parts which mate with each other and snugly receive said liner; said confronting metal housing members including radially outer portions having terminal end portions radially outwardly of said radially inner portions said radially outer terminal end portions which include male part being circumferentially relieved radially outwardly of said male part in a direction away from said male part to provide a radially outwardly opening weld recess and a weld metal bead received in the weld recess radially outwardly of said mating female and male parts.

It is clear that the Press patent does not include complementally formed male and female metal parts but as clearly

illustrated in the Press patent (Fig. 20 for example), the surfaces 72 and 74 abut and are not complementally formed male and female parts.

Claim 23 similarly recites a multi-branch fitting including complementally formed male and female parts disposed in nesting relation with each other.

Claim 25 includes a similar recitation and recites that the terminal end of said first metallic member has a radially inner edge having a radially inner, radially inwardly opening, female recess radially inwardly adjacent the radially outer elongate projection and said terminal end of said second metallic member including a radially inner edge having a projecting tongue bearing against said liner and received by said female recess. Claim 26 similarly recites a lined multi-branch fitting including a plurality of metal housing members...having complementally formed radially inner portions...having a terminal end defining a circumferentially extending male strip projection; the other of said radially inner portions having a circumferentially extending radially inwardly opening not complementary to said male strip projection snugly receiving said male strip projection.

Claim 52 similarly recites a lined multi-branch fitting including a one-piece multi-branch non-metallic liner...a plurality of metal housing members...including radially inner complementally formed confronting terminal end portions disposed in abutting relation and snugly receiving said liner, said radially inner

portion of one of said metal housing members including a radially inwardly opening notch in the radially inner portion of the other of said metal housing members comprising a male strip projection complementally received by said notch.

Claim 16 similarly dependently further recites that the confronting terminal ends of the metal housing members include radially inner and outer portions, said radially inner portion of said confronting end of one of said metal housing members including heat barrier means for inhibiting weld heat generated in a radially outer portion of said outer end of said metal housing members, as said fillet weld bead is being formed, from transferring to said liner. Claim 18 is similar to claim 16.

Claim 30 likewisely recites a lined multi-branch fitting including metal housing members assembled about a preformed one-piece hollow heat degradable liner...and wherein said joints include radially inner portions comprising a slot adjacent said liner and a metal strip projection on the other of said housing members received by and complementally formed to said slot to provide a heat barrier.

Newly added claim 51 similarly recites that said confronting terminal ends of the metal housing members include an insulating projection on one of said metal housing members and a complementally formed recess on the other of the confronting terminal ends of the other of said confronting metal housing

members defining an insulation barrier between said fillet weld bead and said liner.

It should be patently clear that claims 2, 5, 8, 11, 21, 23, 25, 30 and 52 are each directed to the concept of complementally formed slot and male strip on the confronting radially inner ends radially inwardly of the notch which receives the weldment which receives the fillet weld. In Press, all of the faces or junctions 20, 25, and 72, 74 are butt joints and do not include complementally formed male and female parts which provide an insulating barrier.

Claim 33 recites a lined multi-branch fitting including insulating means on said radially inner end portion of one of said metal housing members for insulating a portion of said liner adjacent said radially inner portion of said one housing member from any heat and said radially outer portion of said one metal housing member.

It is respectfully submitted that the metal conduits 31, 32 and 34 of Press do not include any heat barrier means but rather, only the liner 48 which includes a heat barrier groove 45, 46, 49. There is no disclosure or remote suggestion of a heat barrier being formed in the elements 32, 34 of Press. Moreover, it is clear that the elements 32, 34 do not have the cooperating male and female terminal end portions which are disclosed and claimed.

Newly submitted claim 53 recites a method of fabricating a lined multi-branch fitting comprising the steps of selecting a one-



piece multi-branch hollow non-metallic liner..., assembling a plurality of confronting metal housing members..., and fillet welding said confronting housing members together by applying weld heat to said radially outer portion of said one metal housing member, and insulating a portion of the liner adjacent a radially inner portion of said one of said metal housing members from weld heat applied to said radially outer portion of said one metal housing member. As mentioned previously, the Press patent does not fillet weld but rather butt welds the metal housing members 31, 32 and 34 together. Clearly, the butt welds are illustrated in Figs. 5 and 18-20.

Claim 38 dependently further adds the insulating step being accomplished by disposing a male strip, projecting from a radially inner edge portion of said terminal end on the other of said confronting metallic housing members into a complementally formed notch provided on a radially inner portion of an end face of said one confronting housing member. There is no disclosure or remote suggestion of this method in Press. If anything, the Press patent teaches away from such construction and in lieu thereof provides a special insulating notch 45, 46, 47 in the non-metallic liner. Accordingly, it is clear that applicant provides substantially different steps cooperating in a different new and novel manner to produce a new and novel result not taught or remotely suggested in the Press patent or in any of the other art of record.

Claim 47 likewisely recites a method of fabricating a lined multi-branch fitting including a step of assembling about liner branches a plurality of metal housing members by inserting a male insulating strip projecting from a radially inner edge of said end face of one of said housing branches into a complementally formed notch provided on the radially inner terminal end of the other of said housing members to insulate the adjacent portion of said liner from the radially outer portion of said housing member.

It is clear that the Press patent 4,681,349 neither discloses nor remotely suggests this method. Any such suggestion of modifying the Press patent to accomplish applicant's structure and the steps of applicant's method is a hindsight modification made only in view of applicant's own disclosure since applicant is the only one to disclose both the structure and the method of insulating the radially outer weld heat from the liner via an insulating projection on one of the metal housing members received in a complementally formed recess or slot on the other of the confronting terminal end members.

Claim 11 further dependently adds that the confronting metallic housing members include confronting elongate hollow cylindrical metal bases...and confronting substantially semi-cylindrical transversely extending, integral neck portions, integral with said cylindrical metal bases receiving opposite sides of said cylindrical neck of said liner. As clearly illustrated in Figs. 1-6, the metal housing 14 includes a pair of metallic housing

members 16 and 18 including main cylinders 24 and 30, respectively, and integral semi-cylindrical metal half-stacks 34 and 36, respectively. It is respectfully submitted that this construction is not shown or remotely suggested in the Press patent. In Press, the metal cylinder 31 is a right circular or cylinder and not a half stack. Moreover, the metal cylinder 31 is not integral with the cylinders 32 and 34.

Applicant is the first and only person to use the concept of configuring the plurality of confronting metal housing members disposed over and around a multi-branch hollow liner in such a manner as to allow fillet welding the confronting terminal ends thereof with a radially overlapping insulation barrier formed by radially inner tongue and groove mating portions of the confronting metal terminal ends. Applicant's construction and method makes it possible to burn completely through the material being welded and yet protect the liner from direct heat. When weldment is deposited into channel 70a of Press, it can easily, if not probably, burn through the abutting portions 72, 74 and destroy the liner 48.

It is respectfully submitted that applicant has disclosed and claimed new and novel structure and method steps cooperating in a new and novel manner to produce a new and novel result not taught or remotely suggested in any of the art of record. It is respectfully submitted that this is excellent evidence of patentability.

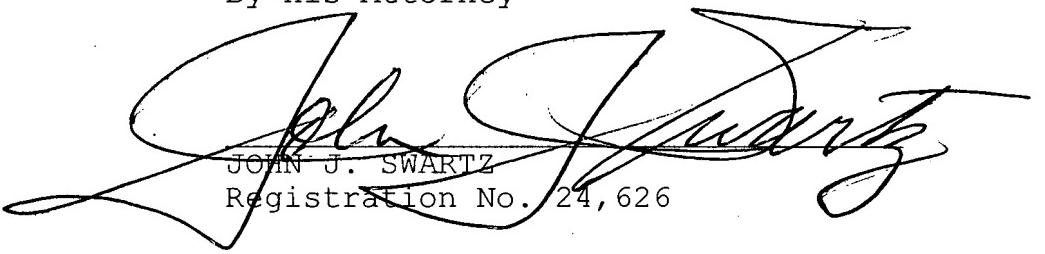
If, for any reason, the examiner is still of the opinion that the claims are not now in obvious condition for allowance, the examiner is respectfully requested to call applicant's attorney collect to set up either a telephone or a personal interview with applicant's attorney in an attempt to advance the prosecution.

Further and favorable action is earnestly solicited.

Respectfully submitted,

JERRY C. SOCIER

By His Attorney



JOHN J. SWARTZ
Registration No. 24,626